

WHAT IS CLAIMED IS:

- 1 1. An etchant composition for etching molybdenum, comprising:
 - 2 5 to 20 % by weight of hydrogen peroxide (H_2O_2);
 - 3 75 to 94% by weight of water; and
 - 4 an additive, including a pH controlling agent.
- 1 2. The etchant composition of claim 1, wherein the additive including the pH controlling
 - 2 agent is selected from a group consisting of ammonium sulfate, ammonium nitrate, sodium
 - 3 dihydrogen citrate/disodium hydrogen citrate, disodium hydrogen phosphate/trisodium citrate,
 - 4 or ammonium acetate.
- 1 3. The etchant composition of claim 1, wherein the additive further comprises a
 - 2 surfactant.
- 1 4. The etchant composition of claim 3, wherein the surfactant is a fluorine-based
 - 2 surfactant.
- 1 5. The etchant composition of claim 1, wherein the hydrogen peroxide is 8 to 18% by
 - 2 weight.
- 1 6. The etchant composition of claim 5, wherein the additive including the pH controlling
 - 2 agent is selected from a group consisting of ammonium sulfate, ammonium nitrate, sodium
 - 3 dihydrogen citrate/disodium hydrogen citrate, disodium hydrogen phosphate/trisodium citrate,